

REMARKS

Claims 1-20 are pending in this application.

Claims 12-18 have been withdrawn from consideration without prejudice pursuant to 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention and have been canceled without prejudice by the present Amendment.

Claims 1, 2, 19 and 20 have been amended and new claims 21-28 have been added by the present Amendment. Amended claims 1, 2, 19 and 20 and new claims 21-28 do not introduce any new subject matter.

REJECTIONS UNDER 35 U.S.C. § 102

Reconsideration is respectfully requested of the rejection of claims 1 and 3-11 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2001/0026307 ("Akahira '307").

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); M.P.E.P. § 2131.

Applicants respectfully submit that Akahira '307 does not disclose or suggest a plurality of head units each formed in a corresponding row, wherein each head unit is shifted a horizontal distance from a previous head unit", as recited in amended claim 1. Therefore, Applicants respectfully submit that claim 1 is not anticipated by Akahira '307. In addition, for at least the reason that claims 3-11 depend from claim

1, claims 3-11 are also not anticipated by the cited reference.

Claim 1 recites head units which are positioned such that the head units are positioned in rows and shifted a horizontal distance from a previous head unit. See, e.g., Fig. 3 (showing that head units 300-1 to 300-n are arranged in rows and shifted by distance d_{n-1}); see also page 10, lines 9-15. In contrast, Akahira '307 discloses the arrangement of individual ink-jet heads, but does not include any disclosure concerning the arrangement of multiple head units and how the multiple head units are arranged with respect to each other.

Since Akahira '307 does not disclose or suggest the limitations recited in independent claim 1, Applicants respectfully submit that independent claim 1 is not anticipated by Akahira '307. Claims 3-11 depend from claim 1 which, for the reasons stated hereinabove, is submitted not to be anticipated by the cited reference. For at least those very same reasons, claims 3-11 are also submitted not to be anticipated by the cited reference.

Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 1 and 3-11 under 35 U.S.C. § 102(b) and that claims 1 and 3-11 are in condition for allowance.

Reconsideration is respectfully requested of the rejection of claim 19 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,145,981 ("Akahira '981").

Applicants respectfully submit that Akahira '981 does not disclose or suggest a plurality of head units having a plurality of heads alternately disposed in first and second sub rows to form a zigzag pattern on the head unit, as recited in amended claim 19. Therefore, Applicants respectfully submit that claim 19 is not anticipated

by Akahira '981.

Claim 19 recites multiple head units including heads disposed in first and second sub rows such that a zigzag pattern of heads is formed on each head unit. See, e.g., Fig. 3 (showing head units 300-1 to 300-n including heads 310-1, 320-1, 330-1 to 310-m, 320-m, 330-m); see also page 10, lines 19-24. In contrast, Akahira '981 does not teach or suggest an arrangement of heads in a zigzag pattern. Further, like Akahira '307, Akahira '981 does not disclose a plurality of head units.

Since Akahira '981 does not disclose or suggest the limitations recited in independent claim 19, Applicants respectfully submit that independent claim 19 is not anticipated by Akahira '981.

Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claim 19 under 35 U.S.C. § 102(b) and that claim 19 is in condition for allowance.

REJECTIONS UNDER 35 U.S.C. § 103(a)

Reconsideration is respectfully requested of the rejection of claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Akahira '307 as applied to claim 1 and further in view of Akahira '981.

In addition, reconsideration is respectfully requested of the rejection of claim 20 under 35 U.S.C. § 103(a) as being unpatentable over Akahira '981 as applied to claim 19 and further in view of Akahira '307.

Applicants respectfully submit that the amendments to independent claims 1 and 19 render claims 1 and 19 and claims 2 and 20 respectively dependent thereon patentable over the cited references. Also, Applicants respectfully submit that amended

claims 2 and 20 are patentable over the cited references in their own right.

Neither Akahira '307 nor Akahira '981 when taken alone or in combination disclose a plurality of head units each formed in a corresponding row, wherein each head unit is shifted a horizontal distance from a previous head unit as recited in amended claims 1 and 20

Applicants respectfully submit that Akahira '307 and Akahira '981, when taken alone or in combination, fail to teach or suggest a plurality of head units each formed in a corresponding row, wherein each head unit is shifted a horizontal distance from a previous head unit, as recited in amended claims 1 and 20.

As stated above, Akahira '307 does not teach these features since Akahira '307 does not include any disclosure concerning the arrangement of multiple head units and how the multiple head units are arranged with respect to each other.

Further, the addition of Akahira '981 does not render the claimed features obvious. The Examiner states that Akahira '981 teaches ink jet heads which are "capable of being shifted a horizontal distance from a previous ink-jet by adjustment mechanisms" and refers to Fig. 21 therein. See October 19, 2004 Office Action at 5.

However, unlike the embodiments recited in claims 1 and 20, the disclosure in Akahira '981 relates to moving the ink-jet heads to correct for discharge failures, not to an arrangement of multiple head units. See, e.g., col. 18, lines 55-67 (stating that an offset amount is calculated and if it falls outside an allowable range, the offset amount is corrected).

In addition, like Akahira '307, Akahira '981 does not disclose a plurality of head units and does not disclose an arrangement of head units with respect to each other.

Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest the recited features of claims 1 and 20.

Accordingly, it would not have been obvious to modify Akahira '307 in view of Akahira '981 to develop the embodiment recited in claim 1, or to modify Akahira '981 in view of Akahira '307 to develop the embodiment recited in claim 20.

As such, Applicants respectfully submit that amended claim 1 is patentable over Akahira '307 as applied to claim 1 and further in view of Akahira '981 and amended claim 20 is patentable over Akahira '981 as applied to claim 19 and further in view of Akahira '307.

Further, for at least the reason that claim 2 depends from claim 1, claim 2 is also submitted to be patentably distinct over the cited references.

Neither Akahira '307 nor Akahira '981 when taken alone or in combination disclose a plurality of head units having a plurality of heads alternately disposed in first and second sub rows to form a zigzag pattern on the head unit as recited in amended claims 2 and 19

Applicants respectfully submit that Akahira '981 and Akahira '307, when taken alone or in combination, fail to teach or suggest a plurality of head units, each having a plurality of heads alternately disposed in first and second sub rows to form a zigzag pattern on the head unit, as recited in amended claims 2 and 19.

As stated above, Akahira '981 does not disclose these features. Further, the addition of Akahira '307 does not render the claimed features obvious.

The Examiner states that Akahira '307 discloses the claimed features and refers to paragraph 0183 and Figs. 14A and 19A-19F. See October 19, 2004 Office Action at 5. However, paragraph 0183 and Figs. 14A and 19A-19F show nozzles arranged in a zigzag pattern, whereas the embodiment recited in claims 2 and 19 includes heads arranged in a zigzag pattern.

Further, as stated above, Akahira '307 does not disclose a configuration of head

units and relates only to the arrangement of heads.

Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest the recited features of claims 2 and 19. Accordingly, it would not have been obvious to modify Akahira '307 in view of Akahira '981 to develop the embodiment recited in claim 2, or to modify Akahira '981 in view of Akahira '307, to develop the embodiment recited in claim 19.

As such, Applicants respectfully submit that amended claim 2 is patentable over Akahira '307 as applied to claim 1 and further in view of Akahira '981 and amended claim 19 is patentable over Akahira '981 as applied to claim 19 and further in view of Akahira '307.

Further, for at least the reason that claim 20 depends from claim 19, claim 20 is also submitted to be patentably distinct over the cited references.

Akahira '307 and Akahira '981 are nonanalogous art

The Examiner is precluded from relying on Akahira '307 and Akahira '981 when rejecting claims 2 and 20 under section 103. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

Akahira '307 and Akahira '981 relate to a color filter producing apparatus for correctly spraying ink on a color filter. In contrast, Applicants' claims relate to the formation of an organic layer on a substrate. Accordingly, based on the differences between spraying ink and forming an organic layer having a uniform thickness, Akahira

'307 and Akahira '981 are not in the field of Applicants' endeavor or reasonably pertinent to the problem with which Applicants were concerned. As such, Akahira '307 and Akahira '981 are not analogous art and Examiner's reliance thereon is improper.

Therefore, based on the foregoing, Applicants respectfully request that the Examiner withdraw the rejections of claims 2 and 20 under 35 U.S.C. § 103(a) and that claims 2 and 20 are in condition for allowance.

NEW CLAIMS 21-28

Applicants respectfully submit new claims 21-28 for consideration and that new claims 21-28 are patentable over the cited references for at least the reasons that (1) claim 21 depends from claim 1, which Applicants submit is patentable over the cited references; and (2) the cited references do not disclose a spraying device that includes first to nth head units respectively disposed in first to nth rows, and sprays organic material onto the substrate, each head unit being shifted by a distance from a previous head unit, wherein each head unit includes a plurality of heads, as recited in claim 22.

An early and favorable reconsideration is earnestly solicited. If the Examiner has any further questions or comments, the Examiner may telephone Applicants' Attorney to reach a prompt disposition of this application.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Michael F. Morano", is written over a horizontal line.

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